**3GPP TSG-RAN WG2 Meeting #119-bis-e *R2-221xxxx***

**E-meeting, 10 – 19 Oct 2022**

|  |
| --- |
| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.331** | **CR** | **3548** | **rev** | **2** | **Current version:** | **17.2.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
|  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME | **X** | Radio Access Network |  | Core Network |  |

|  |
| --- |
|  |
| ***Title:***  | Correction on E-UTRA cell selection during emergency service fallback and EPS fallback for emergency call [CellSelection\_EmergencyFallback] |
|  |  |
| ***Source to WG:*** | Huawei, HiSilicon, Ericsson, China Unicom, CATT, CMCC, BT, Telecom Italia, China Telecom |
| ***Source to TSG:*** | R2 |
|  |  |
| ***Work item code:*** | TEI17 |  | ***Date:*** | 2022-10-09 |
|  |  |  |  |  |
| ***Category:*** | **C** |  | ***Release:*** | Rel-17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | In Rel-16, upon HO failure during EPS fallback, the UE supporting *voiceFallbackIndication* shall attempt to select a suitable E-UTRA cell instead of initiating RRC reestablishment procedure directly. However, the description can be interpreted as only suitable E-UTRA cell can be selected, and the case is excluded that the UE may select an acceptable cell for emergency call. To better support emergency call, the above case should be clearly included in the specification.The similar enhancements can apply to emergency services fallback, i.e. the UE may attempt to select a suitable E-UTRA cell, or acceptable cell if no suitable cell is available upon HO failure during emergency services fallback. And according to the previous RAN2 agreement, how to determine the HO is triggered for emergency services fallback is left to UE implementation. |
|  |  |
| ***Summary of change:*** | In clause 5.4.3.5, * Add emergency services fallback as another condition of E-UTRA cell selection;
* Clarify E-UTRA cell selection process is performed when attempting to select E-UTRA cell, and during the cell selection an acceptable cell can be selected if no suitable cell is available when UE has an ongoing emergency call;
* Add a note to clarify whether/how the UE dertermine the mobility from NR is triggered by emergency services fallback (as specified in TS 23.502) is left to UE implementation.

**Impact analysis**Impacted 5G architecture options:NR SA Impacted functionalityEmergency services fallback, EPS fallback for emergency serviceInter-operability:The CR only impacts UE behaviour, i.e. the UE can select a suitable E-UTRA cell or an acceptable E-UTRA cell if no suitable cell is available instead of initiation of RRC reestablishment upon HO failure during emergency services fallback. Whether to support the new UE behaviour is left to UE implementation. There is no impact on network. Thus there is no inter-operability issue.  |
|  |  |
| ***Consequences if not approved:*** | The UE can not prioritize E-UTRA cell selection upon HO failure during emergency services fallback, and the acceptable E-UTRA cell can not be selected during E-UTRA cell selection for emergency services fallback or EPS fallback. |
|  |  |
| ***Clauses affected:*** | 5.4.3.5 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** | **X** |  |  Other core specifications  | TS 38.306 CR 0822 |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

|  |
| --- |
| START OF CHANGES |

5.4.3.5 Mobility from NR failure

The UE shall:

1> if the UE does not succeed in establishing the connection to the target radio access technology:

2> if the *targetRAT-Type* in the received *MobilityFromNRCommand* is set to *eutra* and the UE supports Radio Link Failure Report for Inter-RAT MRO EUTRA:

3> store handover failure information in *VarRLF-Report* according to 5.3.10.5;

2> if *voiceFallbackIndication* is included in the *MobilityFromNRCommand* message; or

2> if the mobility from NR procedure is for emergency services fallback as specified in TS 23.502 [43]:

3> attempt to select an E-UTRA cell:

4> if a suitable E-UTRA cell is selected; or

4> if no suitable E-UTRA cell is available and an acceptable E-UTRA cell supporting emergency call is selected when the UE has an ongoing emergency call:

5> perform the actions upon going to RRC\_IDLE as specified in 5.3.11, with release cause 'RRC connection failure';

4> else:

5> revert back to the configuration used in the source PCell;

5> initiate the connection re-establishment procedure as specified in clause 5.3.7;

NOTE: It is left to UE implementation to determine whether the mobility from NR procedure is for emergency services fallback as specified in TS 23.502 [43].

2> else:

3> revert back to the configuration used in the source PCell;

3> initiate the connection re-establishment procedure as specified in clause 5.3.7;

1> else if the UE is unable to comply with any part of the configuration included in the *MobilityFromNRCommand* message; or

1> if there is a protocol error in the inter RAT information included in the *MobilityFromNRCommand* message, causing the UE to fail the procedure according to the specifications applicable for the target RAT:

2> if the *targetRAT-Type* in the received *MobilityFromNRCommand* is set to *eutra* and the UE supports Radio Link Failure Report for Inter-RAT MRO EUTRA:

3> store handover failure information in *VarRLF-Report* according to 5.3.10.5;

2> revert back to the configuration used in the source PCell;

2> initiate the connection re-establishment procedure as specified in clause 5.3.7.

|  |
| --- |
| END OF CHANGES |